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ABSTRACT

The majority of studies of adolescent parenthood have focused on the relationship between fertility behavior and various social, economic and demographic factors rather than the role of psychological processes in wanting a child. To study the role that motivational factors play in the experiences and processes associated with adolescent parenthood, the Values of Children Questionnaire was administered to 95 adolescent mothers and expectant mothers. Subjects were also asked about their expectations for their own and their family's involvement in child care. Results showed that the number of previous pregnancies was positively related to higher values of children, as was lower socioeconomic status, race (being black), living in a rural community, and lower employment. Values also increased with age. Finally, relationships were found between values of children and the adolescents' expectations and reports of their own, and significant family members' involvement in the physical maintenance, physical caregiving, and attachment components of child care. The findings suggest that an important function of intervention programs would be to help the adolescent develop more realistic expectations about her role and the role of others in caring for the child. (JAC)

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Values of Children in Adolescent Mothers

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Abstract

This study examined the utility of a values of children model of fertility behavior for the understanding of adolescent parenthood. Ninety-five adolescent mothers and expectant mothers completed the Values of Children Questionnaire which measured their motivations for having children along 8 value dimensions. Number of previous pregnancies was found to be positively related to higher values of children, as was lower SES, race (being Black), living in a rural community, and lower employment. Values also increased with age. Finally, relationships were found between values of children and the adolescents' expectations and reports of their own, as well as significant family members' involvement in physical maintenance, physical caregiving, and attachment components of child-caregiving. The possible role that values of children play as mediators of the adolescent mother's experience was discussed.

While concern about adolescent parenthood has generated a good deal of research over the past decade, the majority of studies have focused on the relationship between fertility behavior and various social, economic, and demographic factors. There is still surprisingly little known about what role psychological processes play in the occurrence of 1.1 million pregnancies and 625,000 births to adolescents each year (Alan Guttmacher Institute, 1981). This state of affairs is somewhat surprising, since a number of important models of fertility include psychological variables as important causal mechanisms (Hoffman, Thornton & Manis, 1978). One might expect that such psychological factors would also play a role in fertility-related behaviors of teenagers.

One class of psychological variables that have figured in theoretical models of fertility behavior, and which may prove particularly useful in understanding adolescent parenthood, are the new parents' psychological motivations for wanting a child. The utility of investigating parenthood motivation in relation to teenage pregnancy has been recognized by researchers in the field (e.g. Russell, 1980) but apparently there are no previous studies that have examined motivations for parenthood in teenage parents. A number of conceptual and definitional confusions may have slowed progress in exploring the motivational factors involved in adolescent parenthood. First, it has sometimes been argued that since very few teenage parents (only 9% according to the Alan Guttmacher Institute, 1981) actually report having made at the outset, a purposive decision to have a baby, it is incorrect to speak about parenthood motivations at all in this group. However, it can be important to explore the motivational context of fertility behavior even when conception doesn't seem to have been accompanied by a purposive choice, since the motivational context may facilitate or constrain choice (Fawcett, 1978; Russell, 1980).

Furthermore, as the pregnancy progresses and decisions are made about whether to keep the baby, give it up for adoption, or have an abortion, motivational processes may play an ever more important role. Russell (1980) argues that, ultimately, the motivational base of adolescent pregnancy is tied to our culture's valuing of children, parenting, and family building, and that this is not basically different than for older adults. Some support for this view was found by Steinhoff (1978) who interviewed a sample of premaritally pregnant women who chose to give birth, shortly after their delivery. Her results showed that many perceived parenthood, not as a limitation of opportunities, but as a source of direction in their lives.

A second problem that may have impeded consideration of motivational processes involved in adolescent pregnancy and parenthood has been the failure to develop an adequate conceptual model. Many existing models of parenthood motivation have focused on the individual psychological component of such motivation to the exclusion of the role played by social and cultural factors (Berelson, 1973; Rabin, 1965; Townes, Note 1). Motivation for parenthood for the teenager may be best understood within its broader cultural context which includes not only intrinsic rewards associated with the caring for a child, such as affection and nurturance, but the symbolic rewards, such as access to adult role status, that are largely culturally determined (Fawcett, 1978).

To study the role that motivational factors play in the experiences and processes associated with adolescent parenthood, the present study utilized a conceptual model of values developed by Hoffman and Hoffman (1973) which was later applied to a cross national study of fertility behavior that included a U.S. national sample (Bulatao, Note2; Fawcett, 1978; Hoffman, Thornton & Manis, 1978; Hoffman & Manis, 1979; Kagitcibasi, Note 3; Meyer & Singerimburg, Note 4). In the latest formulation of this model (Hoffman, et. al., 1978) eight general

value categories are posited, each based on a different psychological need that children satisfy. The eight value categories are Primary group ties and affection, Stimulation and fun, Expansion of the self, Adult status and social identity, Achievement and creativity, Economic utility and security in old age, Morality, and Power and influence. For a given parent, the extent to which children are seen as satisfying any particular need (i.e., providing any particular general value) depends on three factors: (a) the intensity of the need; (b) the extent to which children are perceived as a possible source of satisfaction for the need; and (c) the availability of alternative sources of gratification for the need. According to the model, assessment of these values should allow social policy makers to provide conditions that would lead to reduced population rates through increasing the costs of children, reducing the relative value of children, or providing alternative sources of satisfaction.

Support for the utility of the model has come from a number of published reports using the original cross-national data as well as additional populations (Hoffman et. al, 1978; Hoffman & Manis, 1979). For example, Hoffman et. al. (1978) found that American parents (both mothers and fathers) valued children more strongly than nonparents across all the value categories. These investigators also explored the model's "alternatives hypothesis." They hypothesized that a number of demographic factors, because they are usually associated with decreased availability of routes to value satisfaction outside the realm of parenthood, would be associated with higher values of children. These included race (being Black), being of low socioeconomic status, being unemployed or not working outside the home, and living in a rural rather than an urban community. Their findings generally supported these predictions.

The present study undertook to examine the applicability of the Hoffman and Hoffman values of children model for an adolescent parent population through examining the relationship between a number of important processes of adolescent parenthood and the eight values of children categories. By focusing specifically on a group of adolescents who have chosen to carry their pregnancies full-term, it was hoped to highlight the possible mediating role that motivational factors might play in a process that results in the occurrence of a birth to a teenager.

From the model's contention that values of children form the motivational base for fertility behavior, we derived our first hypothesis. The fertility variable to be examined is the total number of pregnancies ever experienced by a particular adolescent. It is predicted that the number of occurrences of adolescent pregnancy will be related to the strength of an adolescent's values of children, across the eight value categories.

The second hypothesis is based on the "alternatives hypothesis". It is expected that similar relationships as those found with the national sample of older adults between demographic variables and values of children will also occur in adolescent parents. Specifically, it was predicted that four demographic variables: being from lower socioeconomic background, being Black, living in a more rural setting, and not being employed or being employed for few hours, will be associated with higher values of children. From the standpoint of the Hoffman and Hoffman model, these demographic characteristics are thought to be associated with an individual having fewer alternative resources for satisfaction of the needs that underly the value of children categories.

The present study also investigates the relationship to values of children to two additional psychological variables which may influence the degree of access an adolescent has to alternative forms of need gratification outside of parenthood. Neither variable has previously been considered from the standpoint

of the Hoffman and Hoffman theoretical model. Researchers have for some years noted that adolescent parents tend to come from families where their own mother gave birth to a first child at a relatively early age (Alan Guttmacher Institute, 1981). While this phenomena is broadly understood to result from the adolescent's own mother serving as a role model, the process by which this tendency toward having children at an early age passes from one generation to the next is not well-understood. It is possible that adolescents whose own mothers gave birth at an early age grow up observing their mothers seeking need gratification primarily from parenthood, since these mothers are not likely to have had the same opportunities as women who bear children later to develop other sources of need gratification. Through a process of identification and socialization, these adolescents could learn to view parenthood as the major source of need satisfaction in their own lives, or at the very least, they would fail to be exposed to other ways of attaining need satisfaction. It is therefore predicted that there will be positive relationships between the strength of the adolescent mothers' values of children across the 8 value categories and how early in life their own mothers gave birth to their first child.

The availability of alternative sources of need gratification outside of parenthood may not, by itself, insure that the adolescent be willing or able to make use of these resources. The kinds of alternative need gratifications available to the adolescent often require an ability to negotiate the intricacies of adult-like social relations. This in turn requires the development of a sufficient degree of social competence, self-knowledge, independence, and goal-directedness on the part of the adolescent - characteristics which are components of what might broadly be conceptualized as "social maturity." Using a measure of social maturity developed specifically for an adolescent population, it is predicted that high levels of social maturity will be associated with lower values of children scores in these teenage parents.

Relationship between Values of Children and Family Members' Participation in Child Caregiving

One might expect, based on the Hoffman and Hoffman values of children model, as well as on more general models of human values (e.g., Michaels, Hoffman & Goldberg, Note5; Rokeach, 1973) that holding strong values of children would be associated with expectations (during the pregnancy) and reports (after the baby is born) of high personal involvement in child caregiving, since it is largely through direct child caregiving that the psychological needs which are thought to underly each parenthood value, can be satisfied. Holding strong values of children should also be associated with greater anticipated and reported involvement of the birth father in child caregiving activities. This prediction is based on the expectation that the potential satisfactions of having a child include sharing the parenting experience with the baby's father, so that the adolescents who look to parenthood for gratification of basic needs will be motivated to try to involve the father in caregiving. Furthermore, the anticipation or experience of involvement by the baby's father should increase the value that children may have for the adolescent as a source of need satistaction, since achievement of a number of the values of children (e.g. primary group ties and affection) may depend directly or indirectly on the adolescent maintaining her ties with the baby's father and on involving him in caregiving. On the other hand, since the behavioral expression of holding strong values of children should be in the direction of the adolescent's involvement with the child, it is expected that there will be negative relationships between the strength of an adolescent's values and the extent to which she expects or reports that her own mother and father perform the various child caregiving tasks.

To the extent that the pregnant adolescent's expectations about her own and her significant others' involvement in child caregiving are idealistic and motivationally based, rather than based on a realistic assessment of her current situation, it is also expected that there will be considerable difference between these expectations and the reports of family members' caregiving activities given by the adolescents who are already parents, and who may find that actual caregiving patterns are dependent on a host of external factos (e.g., financial resources, time availability, etc.) not considered by still-pregnant adolescents. The relationships between adolescent's birth status (i.e., being pregnant vs. being already a parent) and family members' involvement in each of several salient components of child caregiving will be explored.

The relationships between the values of children categories and birth status will also be explored, as will the relationships between number of months the adolescent has participated in the school age parent program and the value of children categories. Finally previous analysis with the U.S. national sample data showed increasing values of children with adult age. It is expected that an increase in values of children with age will also occur for adolescent parents.

Method

Subjects

Ninety-five adolescent mothers and expectant mothers served as subjects in the research. These adolescents were students in three school age parent programs in southern Michigan, one located in a large metropolitan area

(population approximately 4.3 million), a second located in a small metropolitan area (population approximately 279,000), and the third located in a small town in a rural setting (population approximately 6,300)(United States Department of Commerce Bureau of the Census, 1982). Their socioeconomic background ranged from lower to middle SES. Their average age was 17 years 2 months. 61% were White and 39% Black. For 88% of the subjects, this was a first pregnancy, while 12% of the adolescents had experienced one or more previous pregnancies. All the subjects had chosen to give birth and keep their babies.

Instruments

Each adolescent first completed a short Background Questionnaire focusing on demographic information and on her current school program. This questionnaire was used to derive information pertaining to the adolescent's socioeconomic status (Duncan, 1961), urban vs. rural living situation, birth status (pregnant vs. parent), hours employed, age of the adolescent's own mother at first parenthood, and number of pregnancies ever experienced by the adolescent. Corroboration of the number of pregnancies experienced was obtained for each adolescent through examination of her school records and consultation with the school principal.

Each subject then completed the Values of Children Questionnaire which was a modified version of the instrument developed for use in the cross-national study directed by Fawcett (1978). Normative data for this instrument in the U.S. national sample are provided by Hoffman, Manis, & Thorton (1978). The questionnaire is prefaced by the following instructions: "Here is a list of reasons people give for wanting to have children, in general - that is, why they find it satisfying to have children. Please tell how important each one is to you, as a reason for having children." In both the original version of the questionnaire and in the modified version used here, respondents were asked to indicate whether each of the reasons for having children listed was

very important (scored 3), somewhat important (scored 2), or not important (scored 1). In the modified version, three new items specifically relevant to adolescents were added: "To create life," "To establish independence from your parents," and "Because its part of being an adult." Also, the original item "Because children bring love was replaced by the two items "Because you can have someone to love," and "Because you can have someone love you." Thus, the number of items in the VOC questionnaire has been increased from 22 to 26. Scores for a particular value category were calculated by summing the scores on the individual items that comprised the value category and dividing this sum by the total number of items in that category.

The subjects then completed the "How Are You Feeling Questionnaire," a series of self-ratings designed to measure an individual's perceptions about his or her own level of social maturity. The items for the questionnaire reflect a social competence theoretical model of social maturity and were developed in consultation with a group of adolescents and their school teachers. They focus on the following areas: how responsible vs. irresponsible a person one is, the degree to which one feels a sense of purpose in life, the degree to which one believes one knows oneself as a person, the degree to which one considers oneself an independent person, the degree to which one feels independent from parents, the degree to which one would feel comfortable handling financial matters, the degree to which one feels comfortable being considered an adult at this point, and the degree to which one feels comfortable living on one's own. Each item consists of an open-ended sentence stem with four possible answer choices. The subject must choose the one that is most applicable. Test-retest reliability was established with another subject sample

who took the Social Maturity Scale on two occasions 14 days apart. For this group (N=25) r=.91. (Michaels, Note 6).

Finally, the adolescents were asked to complete the Activities with the Child Questionnaire. This 15-item instrument was developed for use with new parents by Goldberg, Lamb, and Michaels, (Note 7). The subjects were required to indicate, for the time periods when they were not in school, what percentage of a series of common caregiving activities was presently being done (or was expected to be done once the baby is born) by the adolescent herself, by the adolescent's own mother, by the adolescent's father, by the birth father, and by other people.[1] The 15 items comprise 3 dimensions of caregiving. (a) physical maintenance activities (e.g., "buys child's clothes, "); (b) physical caregiving activities (e.g., "bathe child"); and (c) attachment activities (e.g., "hugs and kisses child"). Each caregiver receives a score for each activity dimension. The scores are calculated as the average percentage of the caregiving attributed to a particular caregiver across the items that comprise a particular dimension.

Procedure

Group testing was conducted in a large meeting room within each school age parent program. The research was presented as a study of attitudes and values about parenthood. The adolescents were told to work independently on their questionnaires, keeping to the order that they appeared in the test packet. They were instructed to ask the experimenter for help if they had a problem with the instructions or with the wording of any of the items. They were requested to answer the items honestly and were assured that their answers would be held confidentially by the experimenter. All the adolescents were able to complete the questionnaire in the allotted time. In several cases where the experimenter was alerted by a teacher that a particular adolescent had reading difficulties, provisions were made to have the questionnaire items

read out loud to the student who, without revealing her answers, completed her copy of the questionnaire.

Results

Relative Importance of the Eight Value Categories

The adolescents valued children most as a means of attaining Stimulation and fun ($\bar{X}$ item score = 1.38), followed by Achievement ($\bar{X}$ item score = 1.26), Primary group ties and affection and Power and influence ($\bar{X}$ item score = .81 for both categories), Expansion of the self ($\bar{X}$ item score = .80), Adult status and social identity ($\bar{X}$ item score = .65), Morality ($\bar{X}$ item score = .40), and Economic utility and security in old age ($\bar{X}$ item score = .37). These adolescent mothers and expectant mothers are very similar to the adult mothers studied in the U.S. national sample by Hoffman et. al (1978) with regard to the relative importance attached to particular value categories. In fact, the only difference between the relative importance of the value categories for the adolescents and the U.S. national sample mothers was that, in the adolescent group, Power and influence had the fourth highest average item score and Adult status and social identity had the sixth highest average item score, while in the U.S. national sample mothers, this was reversed (see Table 1).

While the similarity in relative importance attached to the eight values seems to indicate that adolescent mothers and older adult mothers generally seem to value children for the same reasons - i.e., they hold similar views about the potential need satisfactions inherent in motherhood - the two groups do differ in the absolute importance that is attached to each value, with the largely older mothers of the U.S. national sample having higher scores on all 8 value of children categories.

Relationships between Values of Children and Occurrences of Adolescent Pregnancy

It was predicted that higher value scores would be associated with higher incidences of pregnancy in this teenage parent population. This was a first

pregnancy for 88% of the adolescents, while 12% had experienced one or more previous pregnancies. Of those previous pregnancies, approximately 40% had ended in a miscarriage, 33% in a live birth, and 27% in abortion. Correlation analyses were performed to examine the relationship between scores on the 8 value categories and number of pregnancies. Despite the relatively small variability in pregnancy rates in this sample, results of the correlations indicated that number of pregnancies was significantly positively associated with two value categories: valuing children as a means of Expanding the self ($r=.18$, $p<.05$) and valuing children for their ability to provide Stimulation and fun ($r=.17$, $p<.05$). Both of these findings were in the expected direction.

Availability of Alternative Sources of Need Gratification

To examine the hypothesis that adolescents who had less access to alternative outlets for need gratification, either due to demographic factors (race, SES, rural-urban environment, hours employed) or psychological factors (social maturity, age of the adolescent's own mother at first parenthood) would show higher value of children scores, correlation analyses followed by step-wise multiple regression analyses were performed.

The greatest number of significant correlations were found for the psychological variable social maturity. Social maturity was significantly negatively associated with 6 of the 8 value of children categories. The lower an adolescent mother's or expectant mother's scores on this measure, the more likely she was to value children for Economic utility and security in old age. ($r=-.35$, $p<.01$), to Strengthen primary group ties and affection ($r=-.32$, $p<.01$), in order to attain Adult status and social identity ($r=-.27$, $p<.01$), for Moral reasons ($r=-.26$, $P<.01$), as a means of attaining Power ($r=-.26$, $p<.01$), and as a means of Achievement ($r=-.25$, $p<.01$).

The second psychological variable, age at which the adolescent mother's own mother gave birth to her first child, was found to be related to two value categories. The younger the adolescent's own mother's age, the more likely her daughter was to value children as a means of achieving Economic utility and security in old age ($r=-.28, p < .01$) and the more likely she was to value children in order to achieve Adult status and social identity ($r=-.22, p < .05$). All of the significant correlations for social maturity and age of the adolescent's own mother were in the expected direction.

Support was also found in the correlation analyses for the expected relationships between the demographic variables that may regulate opportunities for need satisfaction outside of parenthood and value of children scores. Being Black was significantly related to four values of children. Blacks were more likely than whites to value children for Economic utility and security in old age ($r=.35, p < .01$), for Adult status and social identity ($r=.21, p < .05$), for Power ($r=.19, p < .05$) and for Expansion of the self ($r=.19, p < .05$). The number of hours of employment (which averaged 1.62 hours per week) was significantly negatively associated with valuing parenthood as a means of Achievement and creativity ($r=-.23, p < .01$). Lower socioeconomic status was significantly positively related to valuing children as a means of Strengthening Primary group ties and affection ($r=.19, p < .05$). Living in a more rural environment also was significantly positively associated with valuing children as a means of Strengthening Primary group ties and affection ($r=.19, p < .05$). All these findings were in the expected direction.

Correlation analyses were performed to examine the relationship between adolescents' age and the strength of their values of children. Age was found to be significantly positively correlated with three of the values of children categories: Expansion of the self ($r=.21, p < .05$), Stimulation and fun

(r=.18, $p < .05$) and Morality (r=.17, $p < .05$). These relationships were also in the expected direction.

Finally, correlation analyses were also conducted to examine the relationship of birth status and number of months enrolled in the school age parent program to the adolescents' values of children. Adolescents who had already given birth valued children more for Economic utility and security in old age (r=.22, $p < .05$). Length of time the adolescent was enrolled in the school age parent program was significantly positively related to valuing children for Stimulation and fun (r=.21, $p < .05$).[2]

Multiple Regression Analyses. In order to determine which subset of the psychological variables related to adolescent pregnancy yields an optimal prediction of the values of children categories, a series of step-wise multiple regression analyses were performed for each of the 8 value of children scores. Only predictor variables whose F ratio, were it to be brought into the next step of the analysis, was significant, were entered into the step wise analyses.

The step-wise multiple regression analyses showed that 6 of the 8 value categories were significantly predicted by the overall model derived in the stepwise multiple regressions ($p < .05$) (see Table 2).

The overall model for Primary group ties and affection was significant ($F(1, 79)=9.20$, $p < .01$). Social maturity, which was positively related to this value, was the sole significant predictor.

The overall model for Adult status and social identity was also significant ($F(2,78)=5.77$, $p < .01$). Social maturity was again the strongest predictor (in a positive direction) of this value category ($F(1,79)=6.33$, $p < .05$) Mother's age at first parenthood was also a significant predictor, in a negative direction of Adult status and social identity ($F(2,78)=4.90$, $p < .05$).

The overall model for the value Achievement was significant ($F(2,78)=5.82$, $p < .01$). Social maturity was positively related to Achievement

and was the strongest predictor. ($F(1,79)=5.36$, $p<.05$) followed by the number of hours per week the adolescent was employed ($F(2,78)=5.94$, $p<.05$).

The overall model for Economic utility and security in old age was significant ($F(2,78)=12.50$, $p<.001$). Race (being Black) was the strongest predictor of this value ($F(1,79)=11.12$, $p<.01$). Social maturity also significantly predicted, in a positive direction, valuing children for Economic utility and security in old age ($F(1,79)=12.30$, $p<.01$).

The overall model for the value Morality was significant ($F(1,79)=5.62$, $p<.05$) and the overall model for the value Power was significant ($F(1,79)=5.66$, $p<.05$). In each case, once more, Social maturity was positively related to the value category and accounted for all the predicted variance in the step-wise multiple regression.

A second set of step-wise multiple regression analyses was performed in which adolescent's age, birth status, and months in the school age parent program were included with the other demographic and psychological variables as predictors of the value of children categories. None of the additional variables became significant predictors of a value of children score.

Relationships between Values of Children and Family Members' Participation in Child Caregiving

Separate sets of correlation analyses were performed for the adolescents who were still pregnant and for those who were already parents. In the first instance, scores on the 8 values of children categories were related to the adolescent's expectations of the proportion of physical maintenance, physical caregiving, and attachment activities to be performed by herself, the birth father, the adolescent's own mother, and her own father. In the latter instance, the values of children categories were related to the adolescent's reports of

actual caregiving activities performed by these significant others.

Results of the correlations for the expectant mothers showed significant associations between values of children and involvement in caregiving by each of the 4 potential child caregivers. The more the pregnant adolescents expected to engage in the physical care of her child, the more they valued children as a source of Achievement ($r=.31$, $p<.05$). The more the pregnant adolescents expected that the birth father would provide for the child's physical maintenance, the more they valued children for Primary group ties and affection ($r=.34$, $p<.05$) and for Stimulation and fun ($r=.50$, $p<.05$). Each of the significant correlations for the adolescent mothers and the birth fathers were in the expected direction.

The more the pregnant adolescents expected their own mothers to engage in attachment behaviors with the child, the less they tended to value children in order to attain Primary group ties and affection ($r=-.58$, $p<.01$), Stimulation and fun ($r=-.52$, $p<.01$), Expansion of the self ($r=-.39$, $p<.05$), Adult status and social identity ($r=-.31$, $p<.05$), Achievement ($r=-.37$, $p<.05$), Morality ($r=-.33$, $p<.05$) and Power ($r=-.35$, $p<.05$). Also, the more the pregnant adolescents expected their mother to provide for the physical maintenance of the child, the less they tended to value children for Primary group ties and affection ($r=-.31$, $p<.05$), and for Stimulation and fun ($r=-.53$, $p<.01$). The more the pregnant adolescents expected their own father to engage in attachment behavior with the child, the less they tended to value children in order to achieve Adult status and social identity ($r=-.38$, $p<.05$) and Power ($r=-.34$, $p<.05$). Also, the more these adolescents expected their father to engage in direct physical care of the child, the less they tended to value children as a means of attaining Power ($r=-.36$, $p<.05$). Each of these significant correlations were also in the expected direction.

Examination of the correlations between values of children and reports of ongoing caregiving activities by the adolescents who were already parents were not supportive of the hypothesis that higher values would be associated with greater involvement in caregiving by the adolescent herself and by the birth father, along with lesser involvement by the adolescent's own mother and father. Interestingly, the only significant correlations for the values with caregiving was for the fathers of the adolescent. Adolescent mothers whose fathers were more involved in providing direct physical care for the child tended to value parenthood more for achievement ($r=.29$, $p<.05$), for Economic utility and security in old age ($r=-.34$, $p<.05$), and for Morality ($r=.34$, $p<.05$). Furthermore, the more adolescent mothers reported their fathers engaged in physical maintenance activities the more they tended to value children for Stimulation and fun ($r=-.29$, $p<.05$).[3]

Multiple Regression Analyses. In order to clarify the role that birth status (i.e., pregnant vs. parent already) has in mediating the value-caregiving behavior relationships, and in order to further examine how the eight value of children categories were independently related to participation in caregiving by the adolescents' family members, step-wise multiple regression analyses were performed for the three caregiving behavior dimensions as participated in by the adolescent herself, the birth father, the adolescent's own mother, and the adolescent's own father. Only predictor variables with an F ratio that reached significance when brought into the next step of the analysis, were entered into the step-wise analyses. The step-wise multiple regression analyses showed that 7 of the 12 caregiving categories (one for mother, three for birth father, two for adolescent's mother, and one for adolescent's father) reached significance. Four of the seven prediction models included at least one value of children category as a significant predictor (see Table 3).

The overall model for mother's physical maintenance was significant ($F(1,78)=4.15$, $p < .05$). Birth status was the sole predictor variable with the still-pregnant adolescents expecting lower involvement in physical caregiving than was reported by the adolescents who were parents.

The overall model for the birth father's physical care was significant ($F(1,79)=22.65$, $p < .001$). Birth status was the sole significant predictor ($F(1.79)=22.65$, $p < .01$). The pregnant adolescents tended to expect the baby's father to be more involved in physical care of the baby than was actually reported by the adolescents who were already parents. The overall model for birth father's physical maintenance was also significant ($F(2,78)=22.59$, $p < .001$). Birth status was the strongest predictor ($F(1,79)=31.49$, $p < .01$), followed by the value Stimulation and Fun ($F(2,78)=10.07$, $p < .01$). Finally, the overall model for birth father's attachment was significant ($F(3,76)=8.16$, $p < .001$). The strongest predictor was birth status ($F(1,78)=14.77$, $p < .01$) followed by Expansion of the self ($F(2,77)=4.00$, $p < .05$) and Adult status ($F(3,76)=4.31$, $p < .05$). These value categories were positively related to father's attachment.

The overall model for adolescent's own father's attachment was significant ($F(1,78)=6.39$, $p < .05$). The value Power, which was positively related to this variable, was the sole significant predictor.

The overall model for the adolescent's own mother's physical maintenance was significant ($F(3,77)=4.96$, $p < .05$). The strongest predictor was Birth status ($F(1,79)=3.99$, $p < .05$) with adolescents who were already mothers tending to report higher involvement of their own mother than was expected by the adolescents who were still pregnant. The value Expansion of the self significantly predicted the adolescent's own mother's involvement in physical maintenance activities in a negative direction ($F(2,78)=5.21$, $p < .05$) while the value Power predicted the adolescent's own mother's involvement in physical mainten-

ance activities in a positive direction ($F(3,77)=5.00$, $p<.05$). The overall model for adolescent's own mother's attachment was also significant ($F(2,78)=4.37$, $p<.05$). The sole significant predictor was again birth status ($F(1,79)=4.65$, $p<.05$) with adolescents who were already mothers reporting greater involvement in attachment activities than was expected by the still-pregnant adolescents.

An additional series of step-wise multiple regressions were performed in which adolescents' age, as well as the demographic variables, SES, hours of employment, urban vs. rural site, and race were included along with the value categories and birth status in the group of predictor variables. The inclusion of these additional variables only slightly decreased the number of caregiving categories that were predicted by values of children. Whereas, in the original analysis 5 caregiving variables were predicted by at least one value category, in the analysis that included the additional variables, 4 caregiving variables were predicted by at least one value category.

Discussion

Initial support was found for a relationship between values of children and a measure of adolescent fertility behavior: the number of pregnancies ever experienced by the teenagers. Since all the adolescents were now (or had just been) pregnant, this measure can also be viewed as a measure of the number of repeat pregnancies, and the significant relationships found between number of pregnancies and the value categories Stimulation and fun and Expansion of the self can be interpreted in this light. The findings suggest that repeated pregnancies during adolescence are related to valuing children as a source of satisfaction of needs for more stimulating and exciting experiences (e.g., "Because children are fun," "Because life is more interesting with children") and needs for a larger self-identity linked to the future (e.g., "To add

purpose to your life." "So that the family line will continue.") However, while the relationships between these values categories and number of repeat pregnancies were significant, the correlations were quite low. This might be explained by the fact that there were only a small number of adolescents (11) in the sample who had experienced repeated pregnancies, rather than be an indication that the relationship between these values and number of pregnancies is necessarily a weak one. Research is currently being conducted to replicate these findings and to examine the relationship of values of children held at the start of an adolescent's pregnancy to the decisions an adolescent makes about the outcome of her pregnancy (i.e., to have and keep the child, have the baby adopted, or have an abortion). This new research should also help clarify the causal direction in the obtained relationships between values of children and fertility behavior.

The hypotheses derived from the Hoffman and Hoffman alternatives hypothesis were strongly supported by the findings of this study. The alternatives hypothesis attempts to explain individual differences in the strength of a person's motivations to have a child. The results for the demographic variables suggest that when an adolescent has fewer alternative sources of need satisfaction in her cultural milieu, she is likely to turn to children as a valued source of need satisfaction. The relationships found between values of children and being Black, being of low SES, living in a more rural community, and working fewer hours support similar findings of an earlier study with a national sample of older adults (Hoffman, et. al., 1978). It is important to note, however, that while the assumption is made that these socio-cultural factors result in having fewer alternative sources of need gratification, we need to learn more directly which specific sources of need satisfaction are or are not available to adolescents' of different backgrounds. This should help explain why a

particular demographic variable is related to some values of children but not to others. In some cases, such as the finding that adolescents who are employed for fewer hours value children more as a means to achievement, the findings make intuitive sense. In other cases, however, the reason why a particular relationship was or was not significant is much less clear.

The strongest predictor of adolescents' values of children was their level of social maturity. The findings for social maturity, as well as for the age at which the adolescent's own mother had her first child, suggest a possible modification of the alternatives hypothesis of the Hoffman and Hoffman theoretical model. The positive relationships found between values of children and social maturity may reflect an adolescent mother's ability to utilize alternative sources of need gratification that are already available, rather than reflect the actual number of alternative sources that are in her environment. A useful distinction might then be made between the psychological availability of alternative sources of need satisfaction and the physical availability of these resources. Quite early in life cultural and demographic factors may set the overall limits for available sources of need satisfaction. Then, such socialization experiences as having an identification figure who became a parent at an early age herself, may more directly influence the adolescent to look to having children for primary need gratification. Finally, the adolescent's individual level of social maturity and social competence may determine her ability to successfully attain the alternative need satisfactions that her particular culture and socialization experiences have made available to her.

Another way to understand the findings for social maturity takes into account the underlying assumption of the Hoffman and Hoffman fertility model that having children may initially seem to be both easier to attain and more immediately available than other sources of need gratification. For an

adolescent, this may be even more true than for an older adult. Attaining such values as achievement, adult status, primary group ties, etc. in ways other than becoming a parent usually takes many more years, may require further education and training, and relies on the further development of interpersonal skills. The social maturity measure may reflect the adolescent's ability to formulate and accomplish such future goals, as well as her ability to delay gratification now, with the confidence that long-term need gratification will follow later.

The current study found positive relationships between adolescent's age and two parenthood values: Stimulation and fun and Expansion of the self. This finding is consistent with the general finding that age was positively related to values of children reported by Hoffman, Thornton, and Manis (1978) in their U.S. national sample of older adults. Taken together, the results of the two studies suggests that there may be a continuing increase in valuing of children from adolescence through the adult childbearing years. The increase in values with age during adolescence is not yet understood. It may reflect a realistic assessment by the adolescent about the potential need gratification she can expect from motherhood at a particular age. For example, becoming a mother at age 18 may realistically offer the older adolescent an opportunity for self-expression, whereas for the younger adolescent, it would probably be unrealistic to assume this. Of course, it is almost certainly the case that adolescents' motivations for parenthood are not entirely based on a realistic assessment of what parenthood has to offer.

The relationships found between high scores in the values of children categories and the pregnant adolescents' expectations that they and the birth father would be more involved, and their own mother and father less involved, in child care activities were the strongest and potentially most important

findings of the study. These results may have important implications for our understanding of adolescent pregnancy since they suggest a close link between psychological motivations regarding parenthood, on the one hand, and expectations and perceptions about the parental role, on the other hand. Here again, however, the causal direction of the obtained findings cannot be determined with the present data. It is possible that her strong wish to have children and share parenting with the birth father may be the driving force behind a pregnant adolescent's expectations that she and the birth father will do the majority of the child caregiving. However, it is also possible that the pregnant adolescent's expectations about what proportion of physical maintenance, physical caregiving, and attachment activities will come to her and to the birth father may determine the extent to which she values children, since presumably, greater access to these activities will allow her to find more gratification of the needs that children can satisfy. Ultimately, our ability to determine causal direction is important because of its relevance to understanding the decision process whereby the pregnant adolescent must choose whether to have and keep the baby, have it adopted, or have an abortion. In any group of pregnant adolescents, one might expect those adolescents who anticipate that the division of child care activities will occur in ways consistent with satisfaction of their strongest needs, to be the ones who choose to have and keep the baby, while those who expect child care responsibilities to be inconsistent with their values of children, to be the ones who choose adoption or abortion.

Further exploration of the relationship between values of children and the adolescent's expectations about her own and significant others' involvement in caregiving becomes even more important when one takes note of the large discrepancies between the pregnant adolescents' expectations about caregiving involvement and the actual reports of caregiving involvement given by the adolescents who were already parents. This was especially true with respect to expectations

vs. reports of caregiving involvement by the birth fathers. Pregnant adolescents expected the birth fathers to engage in 30.5% of all physical maintenance activities, 19.0% of all physical care activities, and 29.6% of all attachment activities with the infant, whereas reports of actual involvement by the birth father were that he participated in only 10.8% of the physical maintenance activities, 5.9% of the physical care activities, and 13,7% of the attachment activities. Thus, the reality of parenthood that these adolescents are confronted with after the baby is born is one of probable disappointment in the failure of the birth father to play a greater role in their baby's life, combined with a realization that there is nobody but themselves (63.1% of the physical maintenance, 78.9% of the physical care, and 63.2% of the attachment activities) and, to a lesser degree, their own mothers (15.9% of the physical maintenance, 8.7% of the physical care, and 16.4% of the attachment activities) to take up the slack. These findings suggest that an important function of intervention programs for pregnant teenagers would be to help the adolescent develop more realistic and accurate expectations of what her role, the birth father's role, and her own parents' role with the baby will be, since these may influence her decision about whether to have and keep the baby, give it up for adoption, or have an abortion.

The discrepancies between the pregnant adolescents' anticipations of family members' involvement in caregiving and their reported actual involvement may account for the stronger relationships found between expected caregiving and values of children, than between actual caregiving and values of children. The adolescent parent may find that she has little ability to control the extent of the birth father's involvement in child care or the overall distribution of child care activities in a way that is consistent with her underlying motivations for having children, and that the actual distribution of these activities provides little room for her own need gratification.

At this point it is unclear why, for the group of adolescents who were already parents, values of children were found to be positively related to reports of one's own father's involvement in caregiving. It is possible that the adolescent mother experiences her father's involvement in caregiving as indicating his acceptance of her having the child and of her continued valuing of children as a primary source of need satisfaction.

Reference Notes

1. Townes, B. Measurement of values associated with birth planning decisions. Paper read at the 83rd annual meeting of the American Psychological Association, Chicago, August, 1975.

2. Bulatao, R.A. Values and disvalues of children as perceived by Filipino parents. Preliminary report, Social Research Laboratory, University of the Philippines, Quezon City, September, 1976.

3. Kagitcibasi, C. The value of children: Some social-psychological determinants of fertility in Turkey. Paper presented at the United Nations Population Division workshop on demographic transition and socioeconomic development, Istanbul, April 27 - May 2, 1977.

4. Meyer, P., & Sinvarimbum, M. Values and costs of children to Javanese and Sudanese parents: Preliminary results from the Indonesian V.O.C. Survey. Paper presented at a seminar Population Institute, Gadjah Mada University, Yogyakarta, April 21, 1977.

5. Michaels, G., Hoffman, M. & Goldberg, W. Longitudinal investigation of value system changes at the transition to parenthood. Paper presented at the 1982 Meeting of the American Psychological Association, Washington, August, 1982.

6. Michaels, G. Development of a scale to measure adolescent social maturity. Unpublished manuscript, 1983. (Available from Department of Psychology, Syracuse University, Syracuse, N.Y. 13210.

7. Goldberg, W., Lamb, M. & Michaels, G. Couples adjustment to first pregnancy and parenthood. Manuscript in preparation.

References

Berelson, B. The value of children: A taxonomical essay. In The Population Council annual report, 1972. New York: Population Council, 1973, 17-27.

Duncan, O.D. A socioeconomic index for all occupations. In A.J. Reiss, Jr. (Ed.), Occupations and social status. New York: Free Press, 1961.

Fawcett, J. The value and cost of the first child. In W.B. Miller and L.F. Newman (Eds.) First child and family formation. Chapel Hill: Carolina Population Center, 1978.

Alan Guttmacher Institute. Teenage pregnancy: The problem that hasn't gone away. N.Y.: Author, 1981.

Hoffman, L.W. The value of children to parents and the decrease in family size. Proceedings of the American Philosophical Society, 1975, 119 (6), 430-438.

Hoffman, L.W. & Hoffman, M.E. The value of children to parents. In J.T. Fawcett (Ed.) Psychological perspectives on population. New York: Basic Books, 1973.

Hoffman, L.W. & Manis, J. The value of children in the United States: A new approach to the study of fertility. Journal of Marriage and the Family, 1979, 41 (3), 583-586.

Hoffman, L.W., Thornton, A. & Manis, J.D. The value of children to parents in the United States. Journal of Population, 1978, 1 (2), 91-131.

Rabin, A.I. Motivation for parenthood. Journal of Projective Techniques, 1965, 29, 405-411.

Rokeach, M. The nature of human values. New York: Free Press, 1973.

Russell, C.S. Unscheduled parenthood: Transition to 'parent' for the teenager. Journal of Social Issues, 1980, 36 (1), 45-63.

U.S. Department of Commerce Bureau of the Census, from 1980 Census of Population Vol. 1: Characteristics of the Population. Chapter A: Number of Inhabitants, Michigan PC 80-1-A24, January, 1982.

Footnotes

[1]The category "other people" was included as an answer choice in order to prevent a situation from occurring where a subject's ratings for a particular family member on a particular caregiving category was wholly determined by her ratings for the other family members on that category. To examine whether the ratings for the various family members were relatively independent of one another, correlations were performed between the family members' scores for each category. For the total sample, the strength of these correlations ranged between .007 and .47 with an average correlation (absolute value) of .17. Thus, the ratings of caregiving involvement by the various family members appear to be relatively independent.

[2]Two-tailed tests of statistical significance were used.

[3]Two-tailed tests of statistical significance were used.

Table 1

Comparison of Mean Value of Children Scores for

Adolescent Mothers and Mothers in a U.S. National Sample*

	$\bar{X}$ for Adolescent Mothers	Ranking for Adolescent Mothers	$\bar{X}$ for U.S. Mothers	Ranking for U.S. Mothers
Stimulation & fun	1.38	1	2.60	1
Achievement & creativity	1.26	2	2.24	2
Primary group ties & affection	.81	3	2.00	3
Power & influence	.81	4	1.59	6
Expansion of the self	.80	5	1.75	5
Adult status & social identity	.65	6	1.88	4
Morality	.40	7	1.57	7
Economic utility & security in old age	.37	8	1.35	8

*Since the number of items that comprise each value category differ, the mean scores that are presented reflect the average score for an item of each value category.

Table 2

Step-wise Multiple Regression Analyses for Values of Children Categories as Predicted by Demographic and Psychological Factors of Teenage Parenthood

Value of Children	Step	Variable entered or removed	r	F	Signif-icance	Multiple r	Overall F	Signif-icance
Primary group ties	1	Social maturity	.32	9.20	$p < .01$	.32	9.20	$p < .01$
Adult status and social identity	1	Social maturity	.27	6.33	$p < .05$	.27		
	2	Mother's age	-.22	4.90	$p < .05$	.36	5.77	$p < .01$
Achievement	1	Social maturity	.25	5.36	$p < .05$			
	2	Hours employed	-.23	5.94	$p < .05$	.36	5.82	$p < .01$
Economic utility and security in old age	1	Race	.35	11.12	$p < .01$	.35		
	2	Social maturity	.35	12.30	$p < .01$	.49	12.50	$p < .001$
Morality	1	Social maturity	.26	5.62	$p < .05$	.26	5.62	$p < .05$
Power	1	Social maturity	.26	5.66	$p < .05$	.26	5.66	$p < .05$

Table 3

Step-wise Multiple Regressions for Caregiving Activities with Values of Children and Birth Status

Caregiving variable	Step	Variable entered or removed	r	F	Signif-icance	Multiple r	Overall F	Signif-icance
Mother's physical maintenance	1	Birth status*	-.22	4.15	$p < .05$	.22	4.15	$p < .05$
Father's physical maintenance	1	Birth status	.53	31.49	$p < .01$	.53		
	2	Stimulation and fun	.25	10.07	$p < .01$	.61	22.59	$p < .001$
Grandmother's physical maintenance	1	Birth status	-.22	3.99	$p < .05$	.22		
	2	Expansion of the self	-.21	5.21	$p < .05$	.33		
	3	Power	.09	5.00	$p < .05$	.40	4.96	$p < .01$
Father's physical care	1	Birth status	.47	22.65	$p < .01$	.47	22.65	$p < .001$
Father's attachment	1	Birth status	.40	14.77	$p < .01$	.40		
	2	Expansion of the self	.14	4.00	$p < .05$	.45		
	3	Adult status	.06	4.31	$p < .05$	.49	8.16	$p < .001$
Grandmother's attachment	1	Birth status	-.24	4.65	$p < .05$	.24	4.65	$p < .05$
Grandfather's attachment	1	Power	-.28	6.39	$p < .05$	.28	6.39	$p < .05$

*NOTE: Birth status in this table signifies being pregnant rather than being a parent.